

Appl. No. 09/446,435
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C6
cont'd
said fusible carrier material is melted at a temperature of between about 40°C to 70°C.

Please cancel claims 42-44.

IN THE ABSTRACT:

Please amend the abstract to read:

C7
cont'd
Shaped bodies containing builders, alkali sources, bleaching agents, enzymes and surfactants. Particularly high-performance detergative shaped bodies with high stability in storage, a good perfume profile and a defined solubility profile are obtained if more than 80% by weight of the total content of a mixture of active substance (I) in the form of a bleaching agent from the group of chlorine bleaching agents and a fusible component for controlling solubility selected from the group of surfactants, paraffins, microwaxes and relatively high molecular weight polyethylene glycols is present in a region which makes up no more than 40% by volume of the shaped body.

REMARKS

Claims 21-33 and 36-44 were pending in the application. Claims 21-32 and 42-44 have been canceled, leaving claims 32 and 36-41 for continued examination. For the reasons that follow, applicants respectfully submit that the claims as amended are allowable over the art of record. Applicants conclude with a request for declaration of interference between this application and U.S. Patent No. 6,413,928 to Painter et al.

The abstract has been amended to omit the opening phrase, "The invention relates to" to address the objection under M.P.E.P. § 608.01(b). The recitations of "claim 1" at pages 29 and 31 of the specification have been replaced with --the invention--. These are clarifying amendments that neither affect the substance of the disclosure nor add new matter to the application.

Claim 41 was rejected under the first paragraph of Section 112 as lacking description for "gelling additive." As amended, claim 41 now recites the fusible carrier material of claim 33, instead of the gelling additive. The carrier material is described at, for example, page 11, lines 6 and following, in the application. It is believed claim 41 as amended complies fully with Section 112, first paragraph.

Claim 37 was rejected for "double inclusion" of elements by reciting surfactants and detergents. Applicants have omitted detergents, noting that the scope of the claim is not effectively altered by such amendment, since the claimed mixture of surfactant and builder in fact is what one of skill understands a detergent most generally to be. In any event, the ground for rejection is removed, and the claim is otherwise allowable.

Claim 39 has been amended to recite --recess-- rather than "mould" in order to be consistent with the remainder of the claims.

Claims 33, 36-38, and 40-41 stand rejected as anticipated by JP 09-175992 (Iwase). Applicants respectfully traverse.

For convenient reference, applicants reproduce the pending claims in their entirety:

33. A process for preparing a detergent tablet having two or more regions comprising the steps of:

(a) compressing a particulate composition comprising a detergent active component to form a compressed region of the tablet having a recess;

(b) delivering to said recess a solution or melt comprising a mixture of at least one detergent active component and a fusible carrier material, said fusible carrier material comprising PEG 400 and PEG 12000; and

(c) solidifying said solution or melt to form a region mounted in said recess.

36. A process according to claim 33 wherein said compressed region is compressed by a rotary press.

37. A process according to claim 33 wherein said detergent actives are selected from the group consisting of soil release compounds, enzymes, bleaching agents, bleach activators, builders, alkali sources, surfactants, silver protectors, disintegrating agents, effervescing agents or mixtures thereof.

38. A process according to claim 33 wherein said step of solidifying said melt or solution comprises a cooling step.

39. A process according to claim 33 wherein said step for delivering the melt or solution to the recess comprises adding a volume of melt or solution equal to the internal volume of the recess so that upon solidifying of said melt or solution, the surface of the tablet is smooth.

40. A process according to claim 33 wherein said fusible carrier material is melted at a temperature greater than about 40°C.

41. A process according to claim 33 wherein said fusible carrier material is melted at a temperature of between about 40°C to 70°C.

Arguments for Patentability

As amended, claim 33 now requires a fusible carrier material comprising PEG 400 and PEG 12,000. This material is described at page 11, line 11 of applicants' description. The fusible carrier material is mixed with a detergent active to form the solution or melt that is hardened in the recess of the compressed phase. The mixing of detergent active and fusible carrier material is described at page 10, lines 20-25, and in the examples after Table 1 on page 32.

Iwasa discloses high-molecular weight polyethylene glycol as a hardening, film-forming material for encapsulating liquid bath additives in capsules of 0.5 mm to 5 mm in diameter. Iwasa also discloses using high molecular weight, water soluble polyethylene glycol as a "conventional bath additive" and as an "adhesive material" for bonding the capsules to a solid tablet.

The first defect in Iwasa's disclosure with respect to the claims is that the reference does not disclose or suggest the recited low molecular weight polyethylene glycol. It does not disclose or suggest a fusible carrier material containing the undisclosed low molecular weight polyethylene glycol and a high molecular weight polyethylene glycol. Iwasa also does not disclose or suggest mixing polyethylene glycol and the detergent active to form a suspension or melt, i.e. a relatively homogeneous mixture. Rather, the polyethylene glycol in Iwasa is a separate, solid, encapsulating phase that surrounds the liquid bath additive inside. See Iwasa translation, paragraph 0017. For these reasons

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applicants respectfully submit that Iwasa does not anticipate or render obvious the claims as amended.

The remaining claims 32 and 36-41 as amended should not be subject to rejection for double-patenting obviousness over claims 31-32, 35, 37, and 39 of copending application Ser. No. 09/446,434, claims 21 and 24-29 of copending application Ser. No. 09/446,436, claim 25 of copending application Ser. No. 09/446,481, claims 25, 27, 29, 31-36, and 41-42 of copending application Ser. No. 09/446,578, and claims 43 and 60 of copending application Ser. No. 09/446,579. The question in each instance is whether the claims alone fairly teach or suggest to one of skill what is being claimed here. That teaching is to be determined without reference to the descriptions of the reference applications. No claim of the cited applications recites, and therefore would not teach or suggest to one of skill, the claimed fusible material comprising the two PEGs. Therefore the claims as amended should not be rejected for double-patenting.

REQUEST FOR INTERFERENCE

Having established the patentability of the claims over the art, applicants respectfully ask the Examiner to declare interference between their application and U.S. Patent No. 6,413,928, issued July 2, 2002 to Painter et al., assigned of record to The Procter & Gamble Company.

This request is being filed within one year of issue of U.S. Patent No. 6,413,928. Therefore applicants' request is timely under 35 U.S.C. § 135(b).

The effective filing dates of U.S. Patent No. 6,413,928 are November 10, 1997 or January 26, 1998, depending upon the subject matter at issue. In either case, these dates fall within three months of applicants' effective filing date of December 30, 1997. Applicants hereby through their attorney of record below state that there is a basis upon which applicants are entitled to judgment relative to the patentees of U.S. Patent No. 6,413,928. 37 C.F.R. § 1.608(a).

Proposed Count

A process for preparing a detergent tablet having two or more regions comprising the steps of:

- (a) compressing a particulate composition comprising a detergent active component to form a compressed region of the tablet having a recess;
- (b) delivering to said recess a solution or melt comprising a mixture of at least one detergent active component, a gelling agent comprising a polyethylene glycol having a molecular weight in the range of about 2000 to about 30,000, and a liquid diluent comprising a polyethylene glycol having a molecular weight in the range of about 200 to 600; and
- (c) solidifying said solution or melt to form a region mounted in said recess.

All claims of the present application correspond substantially to the count. Claim 33 differs only in step b), where the count defines low and high molecular weight ranges for the polyethylene glycols, in which ranges applicants' recited species fall. In addition, the count adopts the labels of "liquid diluent" and "gelling agent" used by patentees in U.S. Patent No. 6,413,928, though applicants note that such labels are not substantive since the polyethylene glycols are defined by their physical properties

and not their intended functions.

Claim 36 specifies that the compression in step a) is by rotary press. Claim 37 recites specific detergent actives used to form the compressed or solidified phases. Claim 38 calls for solidifying the melt or solution by cooling. Claim 39 calls for adding a volume of melt or solution equal to the internal volume of the recess so that when the melt or solution becomes solid, the surface of the tablet is smooth. Claims 40 and 41 specify temperatures for melting the fusible carrier material. None of these claims are believed to define separately patentable subject matter, and therefore they also correspond substantially to the count. 37 C.F.R. § 1.607(a)(4).

At least claim 1, as well as claims 2-16, of U.S. Patent No. 6,413,928, correspond substantially to the count. Claim 1 is reproduced here for convenient reference:

1. A process for preparing a multi-phase detergent tablet comprising the steps of:

a) forming a tablet body by compressing a granular detergent mixture, said tablet body having a first surface, said first surface having at least one mold therein and said granular detergent mixture comprising at least one detergent active agent;

b) providing a gelatinous mixture under constant agitation, and delivering said gelatinous mixture to said at least one mold in said tablet body to form a gelatinous portion, said gelatinous mixture comprising at least one detergent active agent and a thickening system comprising a gelling additive and a liquid diluent wherein the liquid diluent is selected from the group consisting of propylene glycols, alkylene glycol mono lower alkyl ethers, ethoxylated or propoxylated ethylene or propylene, glycerol esters, glycerol triacetate,

lower molecular weight polyethylene glycols, lower molecular weight methyl esters and amides, and mixtures thereof; and

c) hardening or curing said gelatinous portion to form a multi-phase detergent tablet.

Claim 1 of U.S. Patent No. 6,413,928 differs from the count is several, but insubstantial, elements. Step a) defines a tablet body having a first surface, which definition is not found explicitly in the count. However, by definition and inherently, the compressed region of the count has at least one surface, and therefore corresponds substantially to the tablet body of patentees' claim 1.

Step b) of patentees' claim 1 recites a "gelatinous mixture . . . comprising at least one detergent active agent and a thickening system comprising a gelling additive and a liquid diluent wherein the liquid diluent is selected from the group consisting of . . . lower molecular weight polyethylene glycols." Again, the patentees' use of "gelatinous mixture" as opposed to the solution of melt of the count is insubstantial where the compositions are defined by the same elements, i.e. detergent active, diluent, and gelling agent. Also, the "constant agitation" of step b) is merely what one of skill would understand as necessary to accomplish the step, the rheological behavior of polyethylene glycols being well known.

The gelling agent recited by the count is also narrower than recited in patentees' claim 1. The gelling agent of the count is, however, the subject of patentees' claim 11, described at col. 8, lines 13-16. There is no substantial difference between patentees'

"hardening or curing" in step c) and "solidifying" in the count.

Thus, claim 1 of U.S. Patent No. 6,413,928 corresponds substantially to the count. So do the remaining claims 2-16. Claims 2-6, 8,9, and 12-15 add conventional process steps, including those defined by applicants' claims 36 and 38-41. Patentees' claims 7, 10, 11, and 16 recite more specific detergent actives and gelling agents, including those of the count and of applicants' claims 33 and 37. It is not believed any of patentees' dependent claims define subject matter that is separately patentable over their claim 1. Therefore all of patentees' claims also correspond substantially to the count. 37 C.F.R. § 1.607(a)(3-4).

In the foregoing, applicants have established the timeliness of their interference request under 35 U.S.C. § 135(b) and provided their allegation of a basis for judgment against the patentees under 35 C.F.R. § 1.608(a). Applicants have identified the patent with which interference is sought, proposed a count, identified at least one claim in the patent corresponding to the count, presented at least one claim in the application corresponding to the count, and explained why the claims in the application and the patent correspond to the count. Applicants therefore believe they are entitled to a declaration of interference with U.S. Patent No. 6,413,928 under 37 C.F.R. § 1.611.

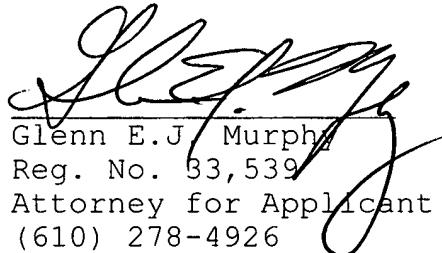
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CONCLUSION

Applicants request that the shortened statutory period to respond to the Office Action, mailed August 22, 2002, be extended three months from November 22, 2002 to February 22, 2003. Please charge our Deposit Account No. 01-1250 in the amount of \$930.00 for the extension fee. Order No. 03-0093.

Should any fees be due for entry and consideration of this Amendment that have not been accounted for, the Commissioner is authorized to charge them to Deposit Account No. 01-1250.

Respectfully yours,



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AMENDMENTS TO THE SPECIFICATION, FEBRUARY 24, 2003

Please amend the paragraph bridging pages 29-30 to read:

--The production of the shaped bodies according to the invention involves steps which are known to the expert in this field in another connection. A preferred embodiment of the shaped body according to [claim 1] the invention contains a recess in a tablet, this recess containing the chlorine bleach ingredient (I). Production is preferably carried out by forming a depression in a shaped body and filling the depression thus formed. The depression may be formed in a Korsch rotary press. In the present case, a Fette tablet press was used. A round tablet die (26 x 36 mm) was selected and, using a punch, a 5 mm deep recess was formed in one side, the base of the recess being selected so that a volume of 1 ml could be poured in, the surface of the tablet thereafter becoming smooth again.-

Please amend page 31, lines 1-16:

--In a test, samples according to starting formulation Ra which contained active chlorine (dichlorocyanurate) as bleaching component on the one hand in homogeneous distribution in the tablet and, on the other hand, in accordance with [claim 1] the invention, so that the active chlorine was largely separated from the other (particularly enzyme-containing) components, were used. Storage stability after 2 weeks was distinctly poorer in the case of the homogeneous tablet so it was not possible to obtain a satisfactory cleaning effect against milk and starch-relevant stains. This applies to the entirely normal making-up of the

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bleach component in region (I) which, in the present case, represented a recess. The effect is even clearer where a mixture of chlorine component and paraffin is used in a standard program at 55°C. The cleaning results were better even immediately after production. The effect improved with storage. Tea, milk, burnt-on meat, burnt-in meat, egg and starch mixtures in particular were removed far more effectively than by tablets without a region (I), i.e. with a homogeneously distributed component (I), and commercially available dishwasher tablets.--

CLAIMS AMENDED FEBRUARY 24, 2003, SHOWING AMENDMENTS

33. (twice amended) A process for preparing a detergent tablet having two or more regions comprising the steps of:

(a) compressing a particulate composition comprising a detergent active component to form a compressed region of the tablet having a recess;

(b) delivering to said recess a solution or melt comprising a mixture of at least one detergent active component and a fusible carrier material, said fusible carrier material comprising PEG 400 and PEG 12000; and

(c) solidifying said solution or melt to form a region mounted in said recess.

37. (amended) A process according to claim 33 wherein said detergent actives are selected from the group consisting of soil release compounds, enzymes, bleaching agents, bleach activators, [detergents,] builders, alkali sources, surfactants, silver protectors, disintegrating agents, effervescing agents or mixtures thereof.

39. (twice amended) A process according to claim 33 wherein said step for delivering the melt or solution to the recess comprises adding a volume of melt or solution equal to the internal volume of the [mould] recess so that upon solidifying of said melt or solution, the surface of the tablet is smooth.

41. (twice amended) A process according to claim [40] 33 wherein said [gelling additive] fusible carrier material is melted

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at a temperature of between about 40°C to 70°C.

AMENMENTS TO THE ABSTRACT, FEBRUARY 24, 2003

[The invention relates to shaped] Shaped bodies containing builders, alkali sources, bleaching agents, enzymes and surfactants. Particularly high-performance detergents shaped bodies with high stability in storage, a good perfume profile and a defined solubility profile are obtained if more than 80% by weight of the total content of a mixture of active substance (I) in the form of a bleaching agent from the group of chlorine bleaching agents and a fusible component for controlling solubility selected from the group of surfactants, paraffins, microwaxes and relatively high molecular weight polyethylene glycols is present in a region which makes up no more than 40% by volume of the shaped body.